

VIA!®

VIA!4.0-EM
VIA!7.0-EM
VIA!10.0-EM

4"/7"/10" Color LCD Touch Panels INSTALLATION MANUAL



ELAN®

Important Information

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by ELAN could void the user's authority to operate this equipment.

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1. Introduction

The VIA!®4.0-EM, VIA!®7.0-EM and VIA!®10.0-EM Color LCD Touch Panels provide an intelligent, affordable solution for controlling audio, video, and automation equipment in a multi-room environments or as a stand-alone controllers (in a Home Theater, for example). With System and Local IR control, RS-232 control, and full-motion video display, these touch panels have all of the features that have made ELAN's award-winning VIA!®6.4 and VIA!®Valet6.4 Touch Panels the most successful products in their category.

Touch Screen Technology

The VIA!-EM lineup utilize a polyester plastic film suspended over a glass panel which is then adhered to the front of a color LCD (Liquid Crystal Display) screen. Depressing the polyester film with a finger allows the film to touch the glass panel underneath, generating a location signal that is read by the electronics. The color LCD display is an active matrix TFT Liquid Crystal Display. Please use fingers only when operating this unit. Do not use pens, pencils, etc. as these may damage the polyester film.

Features

- **4" / 7" / 10" Color Active Matrix TFT Liquid Crystal Display**
- **Full Touchscreen Capabilities**
- **VIA!7.0EM & VIA!10.0-EM - Widescreen, Landscape Aspect Ratio**
- **IR and RS-232 Control Options**
- **Full-Motion Color Video Capabilities**
- **Easy, Powerful VIA!®TOOLS Programming**
- **System, Local and Interface Ports**
- **Affordable!**

Accessories

- **Rough-In Brackets**
VIA!40EMBKT
VIA!70EMBKT
VIA!100EMBKT
- **Wall Frames**
Standard and Euro Styles
Available in White, Light Almond, Almond, Ivory, Brown,
Black & Satin Chrome
- **Precision Panels & Wall Plates**
PVIA!1
PVIA!4
PVIA!10
SPP System Precision Panel

2. System Design & Applications

Planning

Before installing a VIA! Touch Panel, it is essential to have a detailed and accurate system design. Talk with the homeowner to make sure all expectations and design goals are explored. The first step to a good design is to map the system. It is advisable to mark up a copy of the house floor plan with speaker, keypad, touch panel, volume control, and equipment locations, etc. Make sure that all locations are decided upon before pre-wiring commences so that all necessary wiring and installation hardware is in place.

It is essential that ALL system components are accounted for prior to the pre-wire stage. After establishing design goals with the homeowner, make a detailed list of all components. Include source equipment, keypads, touch panels, volume controls, amplifiers, communications gear, etc. Gather up any IR remote controls that may be necessary for final programming, or ensure that the IR codes for all equipment to be installed are available in the VIA!TOOLS IR Library.

When planning specific in-wall installation locations for LCD touch panels, please keep the following tips in mind:

- When properly installed, nothing should be applying contact pressure to the touch panel except for the operator's finger. If something is touching the touch screen window, a false signal can be generated, causing the touch panel to respond incorrectly.
- Avoid installation in direct sunlight or strong ultraviolet light (such as grow lamps for plants). This can degrade and discolor polyester film.
- Avoid installation over heat generating devices and/or in moist areas where condensation can form on the polyester film. Both heat and condensed moisture can affect touch screen performance.
- Avoid installation next to thermostats. The touch screen generates heat that can affect thermostat control and readings.
- Avoid applying any foreign objects, such as adhesive labels, glue, etc. to the touch screen's polyester film. This can release chemicals that can discolor the clear film.
- The touch panel/LCD assembly should not be mounted near electronics that emit radio frequencies or electromagnetic interference (such as CRT monitors, light dimmers, and some power supplies).
- Do not mount VIA! Touch Panels outdoors or in areas exceeding the operating temperature range of -10° to +115°F (-23° to +46°C). If the LCD display is over-heated, or its temperature reduced below the recommended minimum, the liquid crystal polymer can be damaged and the display image may not recover.

Mounting Height

For optimal viewing, VIA! Touch Panels should be installed 56" to 60" from the floor to the bottom of the frame when mounted in a wall. In custom applications, factor in the viewing angles shown in **Figure 2.1 and Table 2.1** and make sure that the graphics and video remain visible in the prospective viewing location.

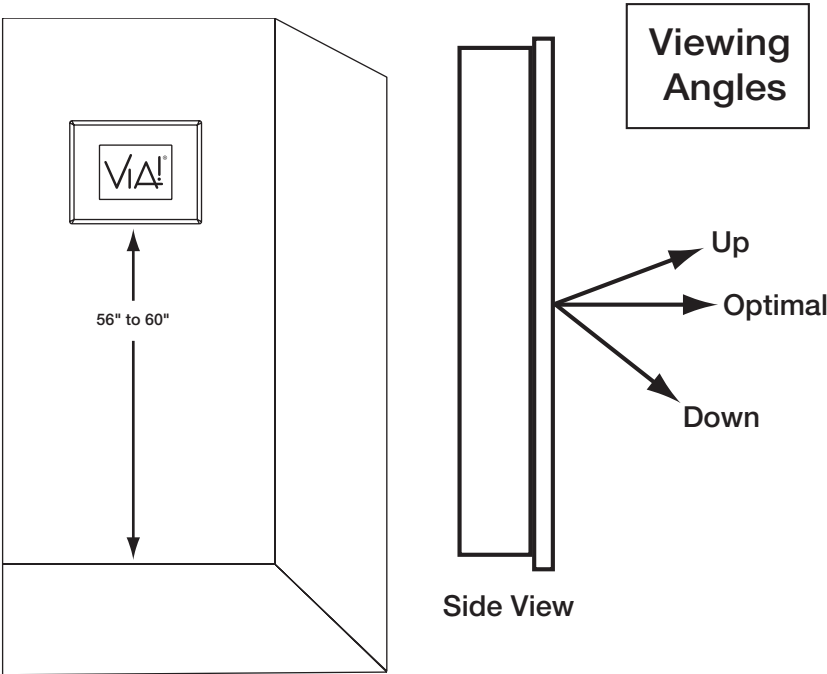


Figure 2.1: Mounting Height and Viewing Angle

	VIA!4.0-EM	VIA!7.0-EM	VIA!10.0-EM
Up Angle	35°	50°	45°
Down Angle	15°	70°	65°
Left/Right	50°	70°	65°

Table 2.1: Viewing Angles

Applications

Stand-Alone/Home Theater

VIA! Touch panels can be used for any Stand-Alone (non-ELAN) system application or as a Home Theater controller. **Figure 2.2** shows a basic application using one VIA! Touch panel, a PVIA1 Wall Plate, and an ELAN IRD4 Amplified IR Connection Block to control a stack of A/V equipment.

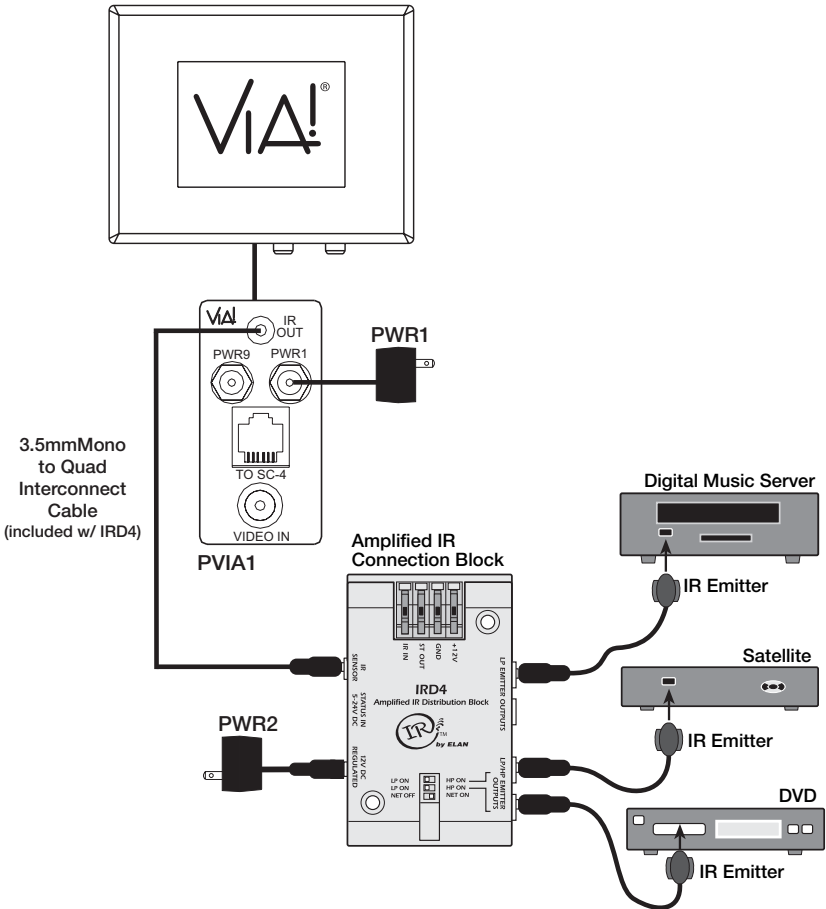


Figure 2.2: Stand-Alone/Home Theater Application - Basic

Stand-Alone/Home Theater - Expanded

Stand-Alone systems (without an ELAN multi-room controller) can be as simple as one VIA! Touch Panel controlling one IR source, or as complex as multiple VIA!s, Olé Touchpads, keypads, and IR sensors all controlling many IR sources. **Figure 2.3** shows four VIA! Touch Panels, a PVIA4 Wall Plate and an IRD4 IR Distribution Block controlling a stack of A/V gear.

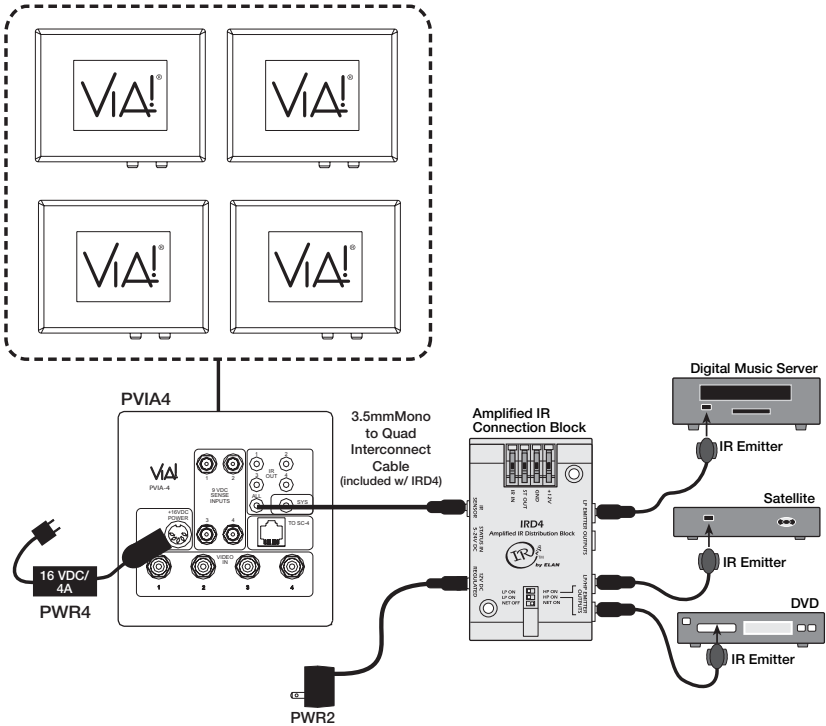


Figure 2.3: Stand-Alone Application - Expanded

ELAN S12 Multi-Room A/V Controller

Use either ELAN's PS12 Precision Panel or SPP System Precision Panel when installing VIA! Touch panels in an S12-based application. A PVIA Wall Plate is not necessary when using VIA!s with an S12; the PS12 or SPP has all necessary provisions. A PWR4 or PWR10 Power Supply must be used when connecting VIA! Touch Panels to the PS12. **Figure 2.6** shows eight VIA!s and a PS12 or SPP connected to an ELAN S12.

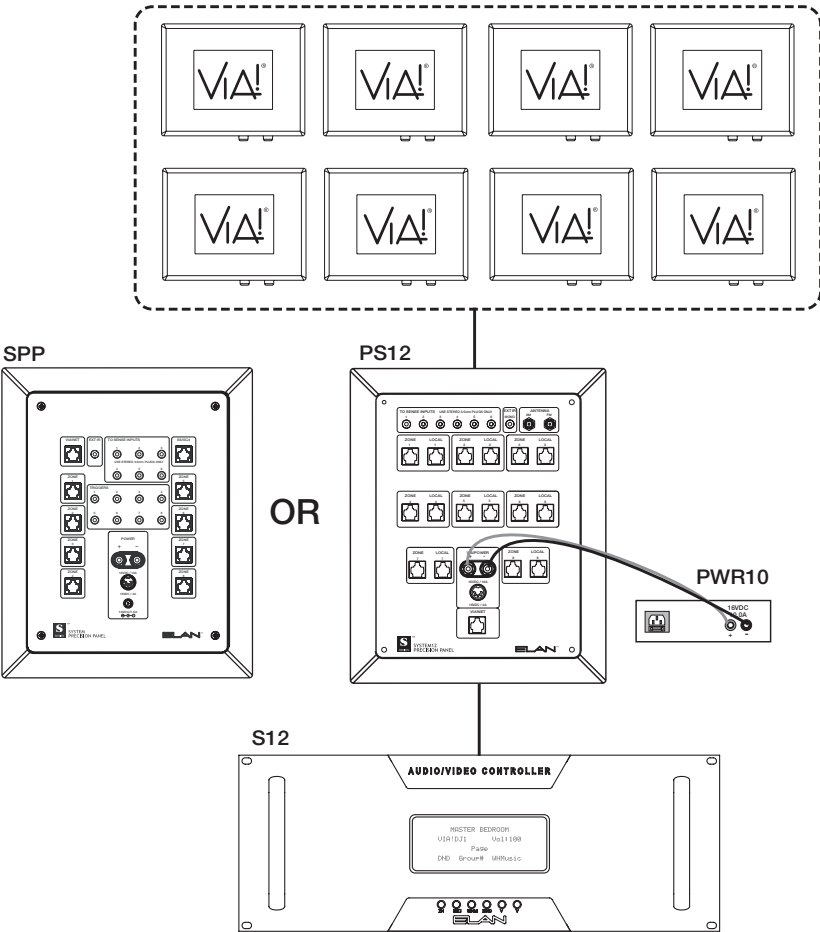


Figure 2.6: ELAN S12 Application

ELAN S8 Multi-Room A/V Controller

ELAN's SPP (System Precision Panel) is designed to work with any S Series Multi-Room controller. **Figure 2.7** shows ten VIA! Touch Panels connected to a System8 (S8.6AV or S8.6P) Multi-Room A/V Controller using an SPP. No PVIA Wall Plate is necessary when using VIA!s with an S8; the SPP has all necessary provisions. A PWR4 or PWR10 Power Supply must be used when connecting VIA! Touch Panels to the SPP.

Note: The SPP can be used with ANY ELAN S Series Multi-Room Controller. Connections are identical for ELAN S6, S8 or S12 applications.

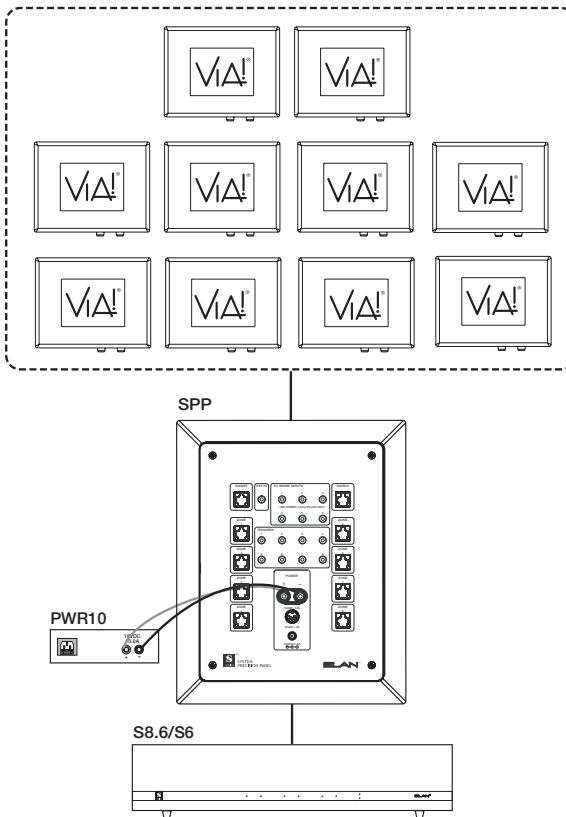


Figure 2.7: S6/S8.6/S12/SPP Application

ELAN S6 Integrated Multi-Room Controller

The VIA!4.0-EM's affordability makes it an ideal candidate for System6 (S6) applications, although VIA!7.0-EM and VIA!10.0-EM Touch Panels may certainly be used, as well. Use a PVIA Wall Plate appropriate for the number of VIA!s to be installed or an SPP System Precision Panel. **Figure 2.4** shows four VIA!4.0-EM's and a PVIA4 configured for use with an ELAN S6.

Note: The SPP can be used with ANY ELAN S Series Multi-Room Controller. Connections are identical for ELAN S6, S8 or S12 applications. See Figure 2.7 for details

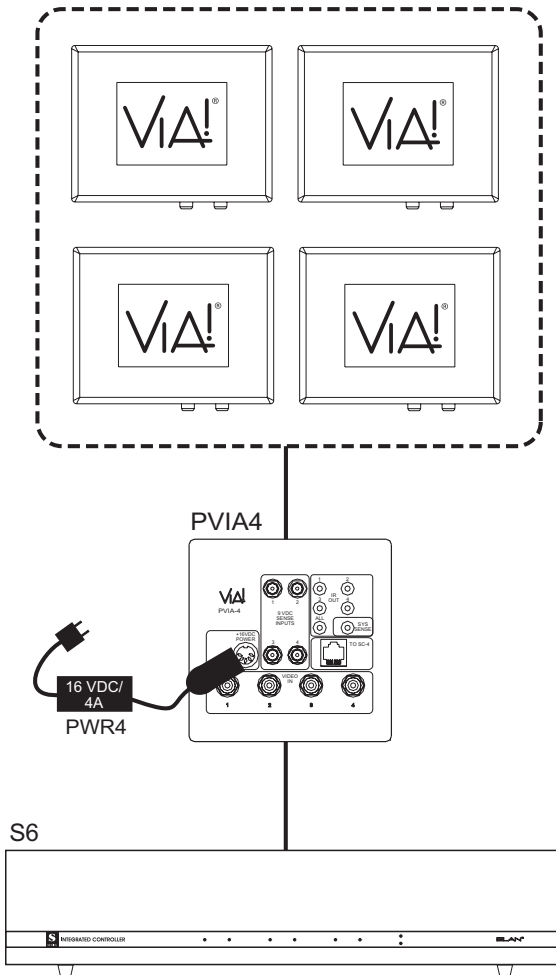


Figure 2.4: ELAN S6 Application

ELAN Z•System

Advanced features like **Audio Detect** and **Spatial Enhancement** can be accessed using a VIA! in an ELAN Z•System. **Figure 2.5** shows how to configure four VIA!s using a PVIA4 and a PZ6 Precision Panel for Z•Systems.

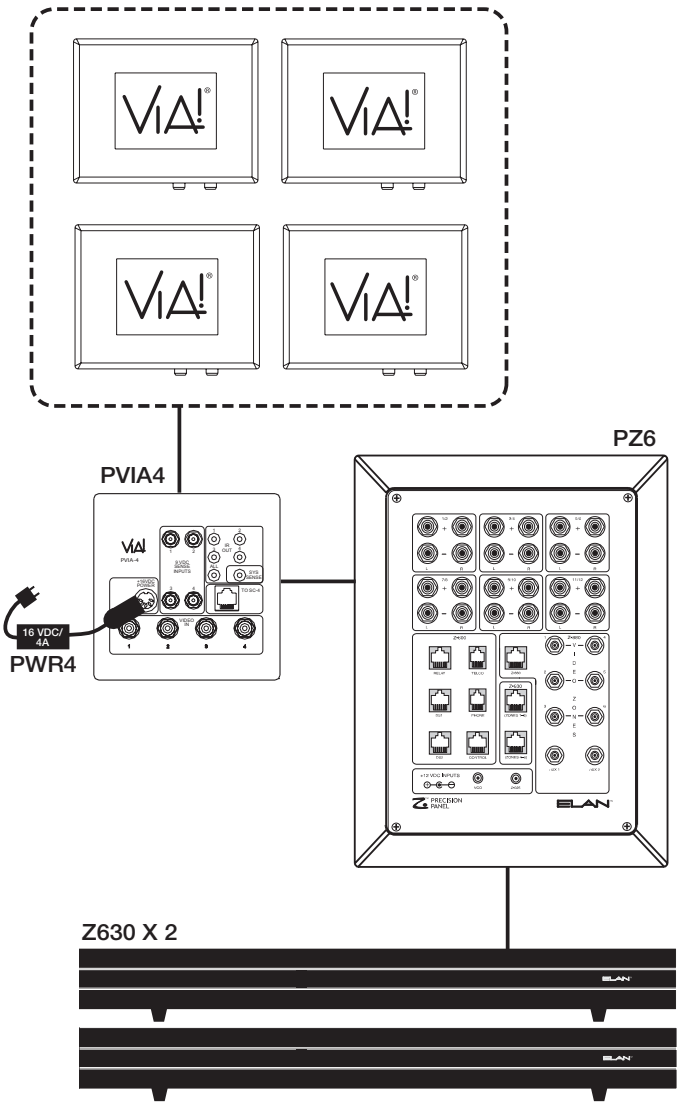
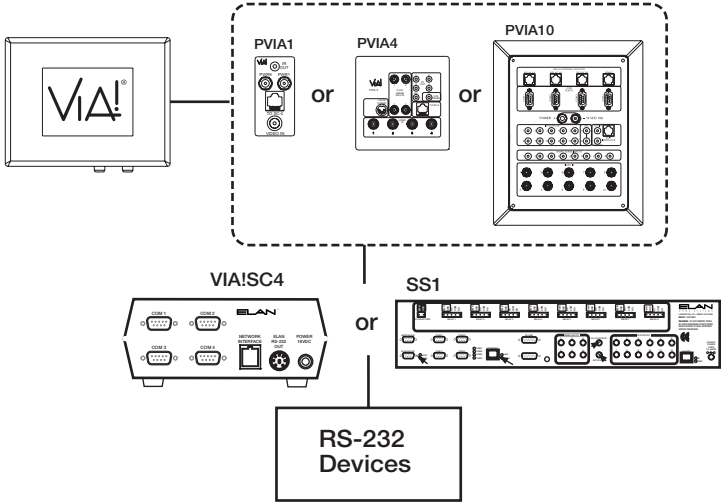


Figure 2.5: Z•System Application

RS-232 Controlled Devices (Regardless of System Type)

By adding an SC-4 Serial Controller or SS1 System Station to any system using VIA! Touch Panels, powerful RS-232 control becomes possible for a wide assortment of devices such as security systems, lighting systems, HVAC, spa control, A/V gear, etc. Use the appropriate PVIA Wall Plate or Precision Panel for the number of VIA! Touch Panels in the system and the system type. When installing an SC-4/SS1 in an S12 or S8 system, a PVIA Wall Plate is not needed; the SPP or PS12 Precision Panel has all necessary provisions.

Stand-Alone, Z•Systems



S6, S8, or S12 Systems

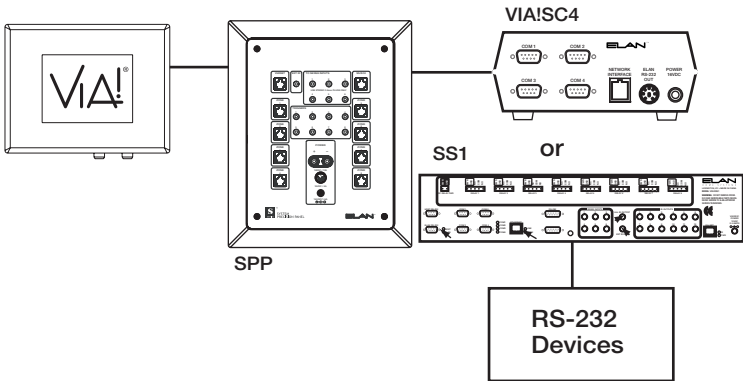


Figure 2.7: RS-232 Controlled Devices

3. Installation/Connections

Each of the three VIA! Touch Panel models uses the same connectors and hook up identically. All connections are located on the bottom of the unit and include a System Port RJ-45 Connector, a Local Port RJ-45 Connector, an External Power Connector and an IR Interface Port as well as a Composite Video Input and Output.

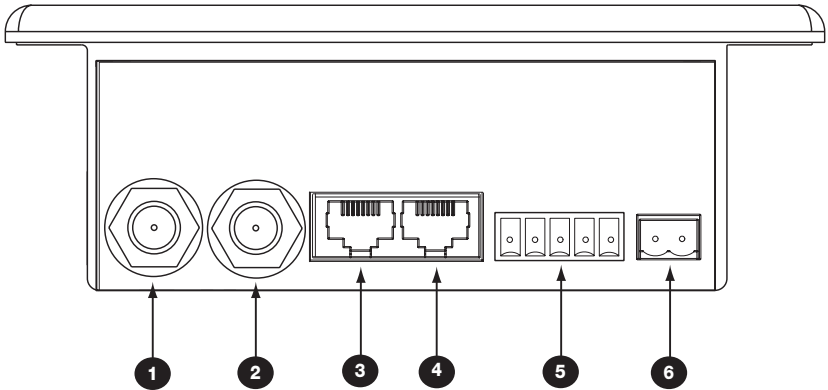


Figure 3.1 VIA! Connectors

Note: VIA!4.0_EM shown. Connectors are identical for VIA!7.0-EM and VIA!10.0-EM

	Connection	Connector / Cable Type
1	Video Out	F-Connector / RG-6 or RG-59
2	Video In	F-Connector / RG6 or RG-59
3	System Port	RJ-45 / CAT-5
4	Local Port	RJ-45 / CAT-5
5	Interface Port	Removable Screw Terminal / CAT-5
6	External Power	Removable Screw Terminal / 2 Conductor 16/18 AWG

Table 3.1 VIA! Connectors

1 Video Out

This connection is used to send Video signals passed through the VIA! Touch Panel from a video switcher or source component to another VIA! Touch Panel, TV or Monitor.

2 Video In

This connection receives the Video Signal from a video switcher or source component.

3 System Port

The System RJ-45 port provides required functionality for all system types. Use this port when the VIA! is used in an ELAN Multi-Room Controller- based System (ELAN S or Z•System). Use ELAN Standard RJ-45 Pinout configuration (as shown in **Figure 3.2**).

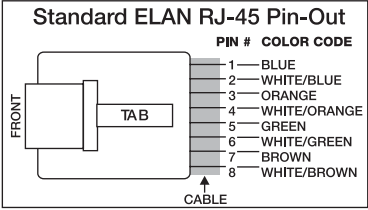


Figure 3.2: ELAN RJ-45 Pinout

4 Local Port

The Local RJ-45 port provides an interface for use primarily with the VIA! SR-1 Sense/Relay Module Local Port Connection (as well as other functions). The Local Port is identical in function and pinout to the System Port.

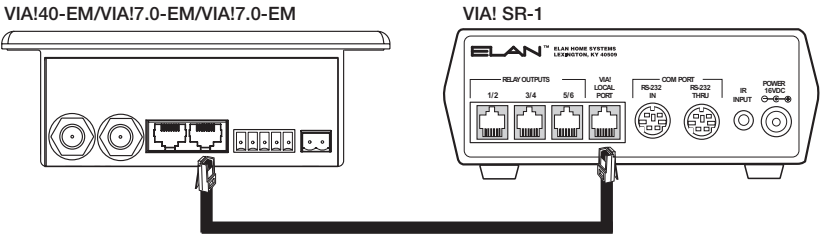


Figure 3.3: Local Port

5 Interface Port

Use this connector when utilizing local control features such as local source control, local IR receivers, or sense-enabled automated sequences.

IR OUT (LOC)

The IR OUT (LOC) port is typically used to control a device that is not part of the main IR system, such as a TV or DVD player located within the same room as the touch panel, or an ELAN Electronic Volume Control. IR is routed to an emitter or IR distribution block connected to the IR OUT (LOC) in two ways:

1. Any IR signal that is received from the Local IR Input is sent out of the Local IR Output RJ-45 Port, the SYS IR Output RJ-45 Port and the IR OUT (LOC) port from the Interface Port.
2. IR signals may be specified in programming as "Local" and be routed through the Local IR Output (LOC) port. See VIA!TOOLS "Help" file for specific information about IR routing.

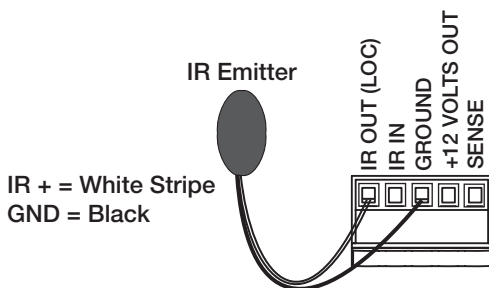


Figure 3.4: Interface Port IR OUT (LOC) Connection

IR IN

The Local IR Input is typically used to connect an external IR receiver to the touch panel. Typical applications include a plasma-friendly IR receiver (ELAN IRS8EP, for example) placed near a TV, or an auxillary IR receiver placed in an area more convenient than the location of the touch panel. Any IR signal that is received from the Local IR Input is sent out the Local IR Output RJ-45 Port, the System IR Output RJ-45 Port and the IR Out from the Interface Port.

Connect IR IN, GROUND, and +12 VOLTS as shown in **Figure 3.5**.

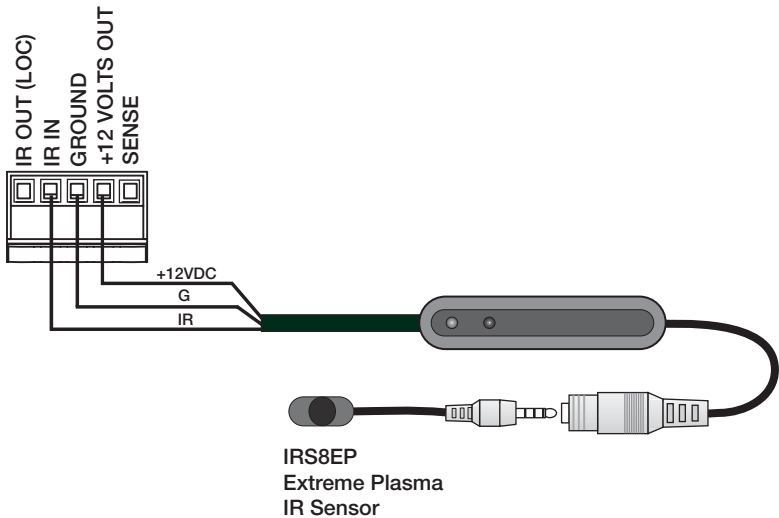


Figure 3.5: Interface Port IR IN Connection

Sense

The Sense Port allows a contact closure to trigger IR or RS-232 sequences programmed in VIA!TOOLS. For example, use a motion sensor to activate a contact closure and cause automated actions such as system power on, drapes closed, and lights dimmed.

Connect SENSE and GROUND to a contact closure device as shown in **Figure 3.6**.

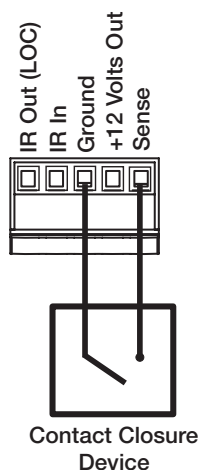


Figure 3.6: Interface Port Sense Connections

6 External Power

The External Power port allows VIA! Touch Panels to be powered with a two-conductor 16/18 AWG wire from an external power supply or Precision Panel connected to the removable screw terminal plug.

Connect +16 VOLTS and GROUND as shown in **Figure 3.7**.

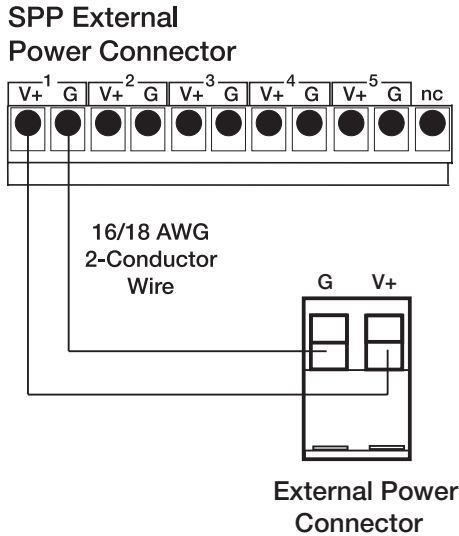


Figure 3.7: External Power Connections

Installation

ELAN Precision Panels and Wall Plates

VIA! Touch Panels require an ELAN Precision Panel or Wall Plate to function properly. The specific application will determine the Precision Panel or Wall Plate needed. Each of these panels provides a power supply of the correct voltage (+16VDC) and amperage for the application being covered. In addition to power, these Precision Panels and Wall Plates have provisions for critical connections like IR, GND, and System Status.

PVIA1

The PVIA1 is a single-gang Decora® style wall plate designed to support a single VIA! Touch Panel. It has connections for Power, GND, Sense/Status, IR, Video, and Serial Control. It can be used in any application including ELAN Multi-Room systems, or Stand-Alone systems.



PVIA4

The PVIA4 is a dual-gang wall plate that provides power, control, and video connectivity for up to four VIA! Touch Panels. It can be used in any application including ELAN Multi-Room systems, or Stand-Alone systems.



PVIA10

The PVIA10 is a Precision Panel designed to provide power, control, and video connectivity for up to ten VIA! Touch Panels. It can be used in any application including ELAN Multi-Room systems, or Stand-Alone.

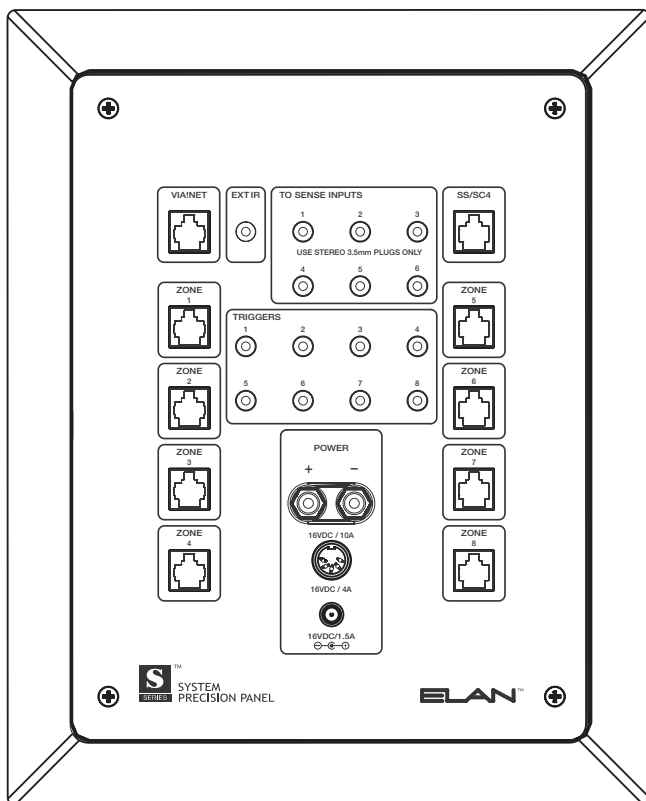


SPP System Precision Panel

The SPP is designed to accommodate all connectivity required for S6, S8 and S12 installations, including VIA! Touch Panels and Olé™ Touchpads. Each SPP provides connections for ELAN systems of up to eight zones. A separate power supply must be used when connecting VIA! Touch Panels to an ELAN System Controller.

- PWR1 for one VIA!-6.4, VIA!VALET-6.4, VIA!4.0-EM, VIA!7.0-EM or VIA!10.0-EM
- PWR4 for one to four VIA!-6.4s, VIA!VALET-6.4s, VIA!4.0-EMs, VIA!7.0-EMs or VIA!10.0-EMs
- PWR10 for five to ten VIA!-6.4s, VIA!VALET-6.4s, VIA!4.0-EMs, VIA!7.0-EMs or VIA!10.0-EMs
- Use multiple SPPs for multi-chassis systems (S12 or S8)

Note: Although a PS12 Precision Panel can be used for System12 applications, the SPP System Precision Panel is designed for ALL S Series applications and will be shown throughout this manual.



Pre-Wire

VIA! Touch Panels require power, control, status, and video connections to function correctly.

- **Control, Status, & Power:** Cat-5
- **Video:** RG-6 or RG-59 Coaxial Cable

Control, Status, Power

Run Cat-5 wire from the main equipment location (head-end) to the location where the touch panel will be installed. Make sure that provisions have been made for installation of a PVIA Wall Plate or Precision Panel (typically at the head-end).

Video

VIA! Touch Panels have both a Video Input and a Video Loop Output for composite video signals. Run RG-6 or RG-59 coaxial cable from the head-end location (possibly a video switcher) to the location where the touch panel will be installed. Be careful not to make sharp bends when installing coax. F-to-RCA connectors will be necessary to adapt the RCA composite output of the video source (or switcher) to the F-connector of the coax run (see **Figure 3.7**). The VIA!s have female F-connectors for both Video Input and Loop Output.

Note: VIA! Touch Panels display composite video signals (not RF). Use an RCA “Y” cable to split the video signal going to a VIA!; a coaxial splitter or splitter/combiner will not pass composite video signals!

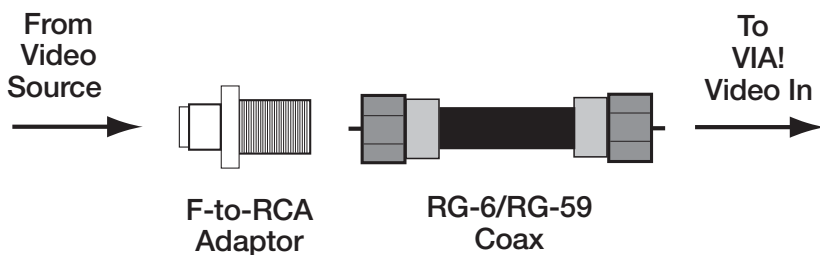


Figure 3.7: RG-6/RG-59 and F-to-RCA Adaptor

Video Termination Switch

When the video signal coming into a VIA! Touch Panel is to be looped back out of the panel to another VIA! or TV, the Video Termination Switch must be moved from the factory default **75 Ohm TERM** position to the **OPEN** position as shown in **Figure 3.8**.

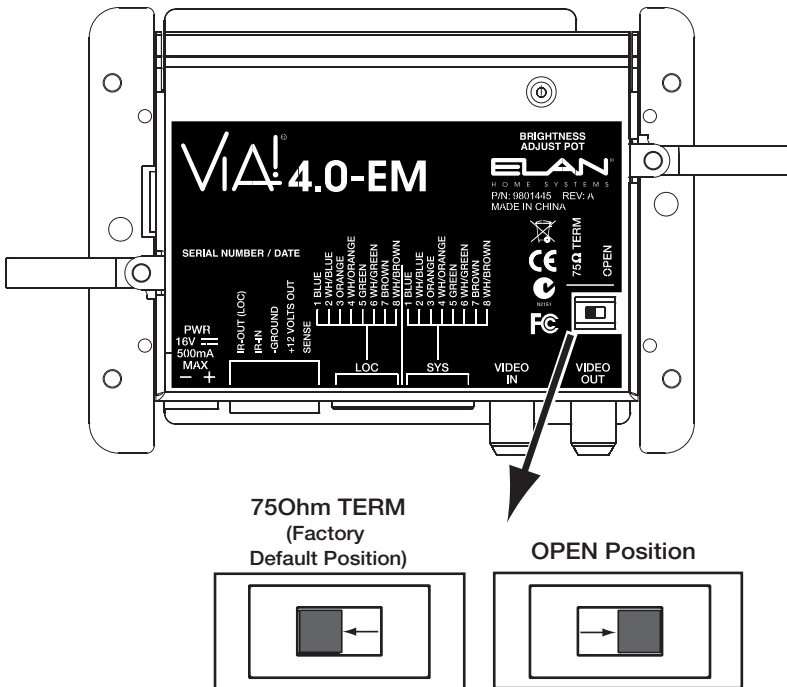


Figure 3.8: Video Termination Switch

Note: The illustration shows a VIA!40-EM. The Video Termination Switch is identical in all respects on the VIA!7.0-EM and VIA!10.0-EM.

Video In/Loop Out Configuration

Often, VIA! Touch Panels will be installed in conjunction with other VIA! Touch Panels and/or televisions located in the same area. There are two scenarios that can be utilized:

- **Each VIA! and/or TV displays the same video.**
A single video feed is routed through the VIA! to additional VIA!s or TV(s).
- **Each VIA! and/or TV displays video independently.**
Independent video feeds are routed to each VIA! and/or TV.

For applications where TVs and VIA! Touch Panels display the same video, use the Video Loop Out to daisy-chain VIA!s/TVs together as shown in **Figure 3.9**. Set the 75 Ohm Termination Switch(es) to the **OPEN** position.

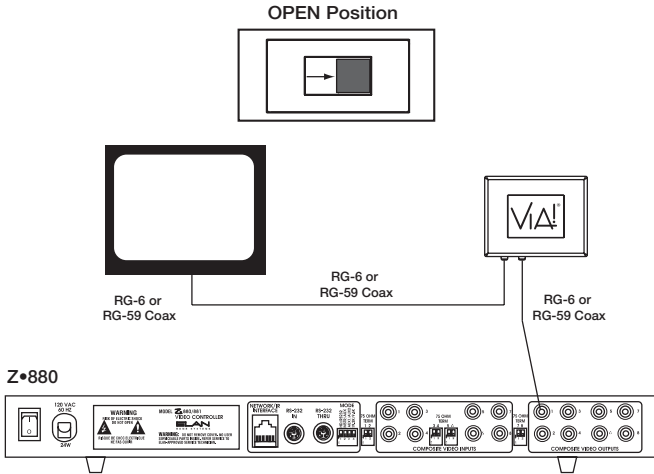


Figure 3.9: Video Loop Out

For applications where different, independent video is displayed on each VIA!/TV, run separate feeds of RG-6 or RG-59 from a video switcher (ELAN Z•880, S8 or S12) to each VIA!/TV as shown in **Figure 3.10**. Keep the 75 Ohm Termination Jumper in the **75 Ohm TERM** position.

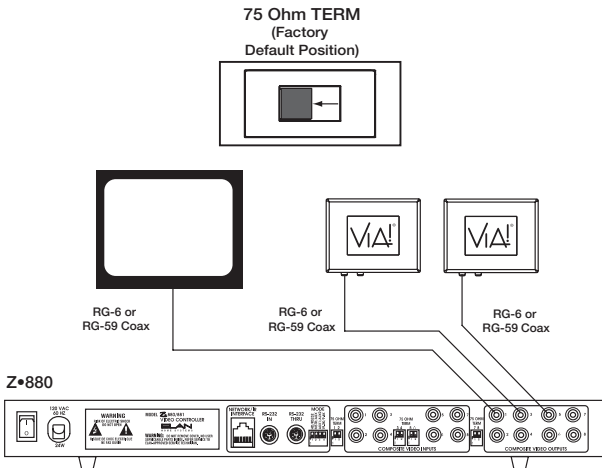


Figure 3.10: Separate Video Feeds

Rough-In

Rough-in installation of VIA! Touch Panels requires careful attention to the design plan made previously. See **Chapter 2. System Design & Applications** for a list of things to factor in to specific mounting locations before deciding exactly where to place the unit.

New Construction

If installing VIA! Touch Panels in a new-construction environment, it is advisable to use a New Construction Bracket (VIA40EMBKT, VIA70EMBKT, VIA100EMBKT). Install the bracket after the studs are in place and the electrical wiring is installed, but before the drywall is up. The bracket has provisions for mounting to a stud on the left, right, or center of the stud bay. Determine the mounting location and height, securely fasten the rough-in bracket, and secure the Cat-5 and coaxial cables to the bracket using tape or wire ties. Make sure to factor in the thickness of the drywall being used when determining the depth to mount the rough-in bracket.

Note: The VIA!100EMBKT Rough-In Bracket is designed to completely fill the space between wall studs. Should studs be spaced more widely than is standard, mount the rough-in bracket to horizontally mounted studs as shown in Figure 3.11

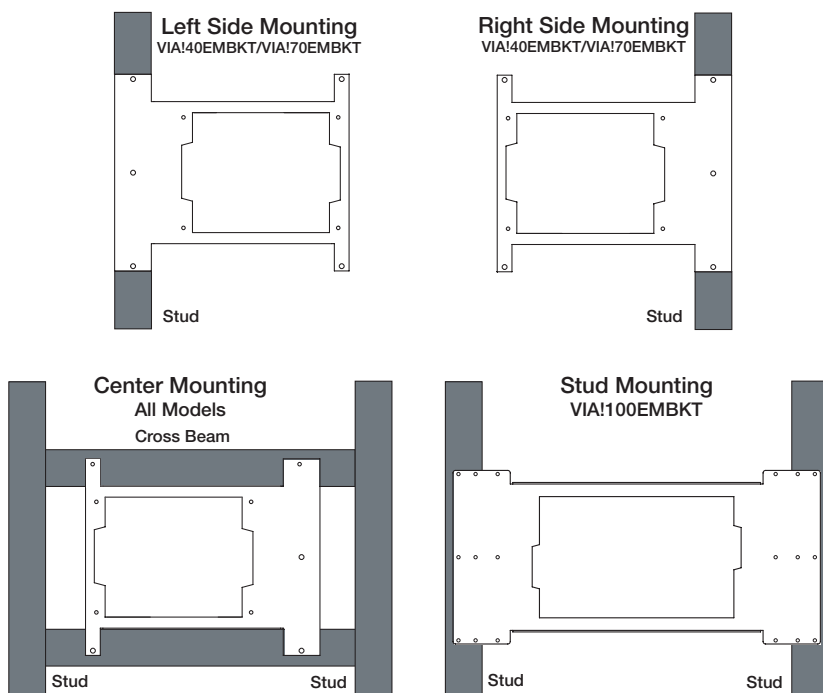


Figure 3.11: New Construction - Rough-In Bracket

Retro-Fit

VIA! Touch Panels can easily be installed directly into the wall (with no rough-in bracket) when being utilized in a retro-fit application. Use the template included in the box to carefully mark the location to be cut. Be very careful about AC lines, HVAC, communications wires, etc. when cutting into a wall!

There are two ways to mount a VIA! Touch Panel when not using a rough-in bracket:

1. Use the clamping winglets on the side of the unit.
2. Use the pre-drilled holes to attach the unit to a stud or other secure point.

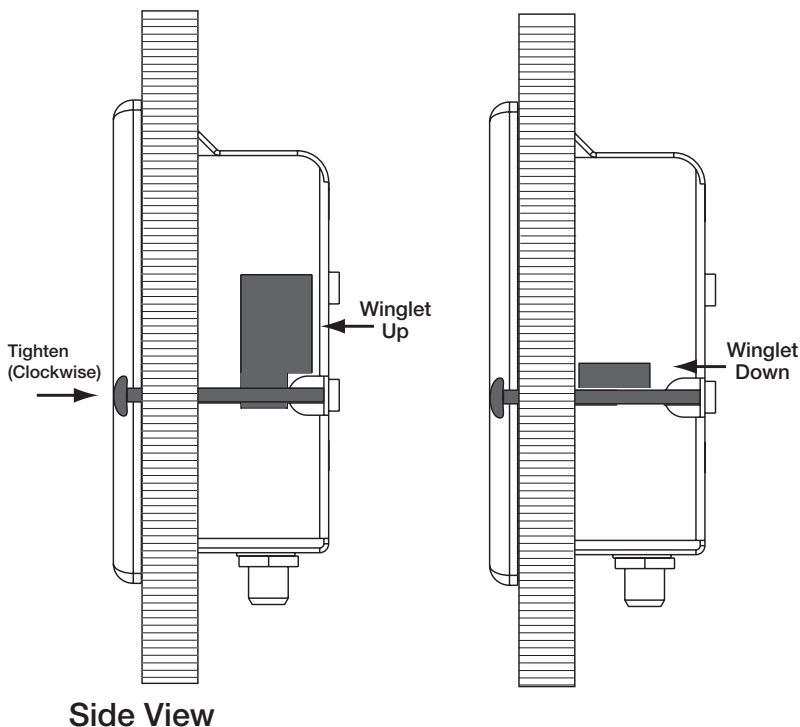


Figure 3.12: Retro-Fit - Clamping Winglets

VIA! enclosures are equipped with two clamping winglets that flush up against the drywall when tightened.

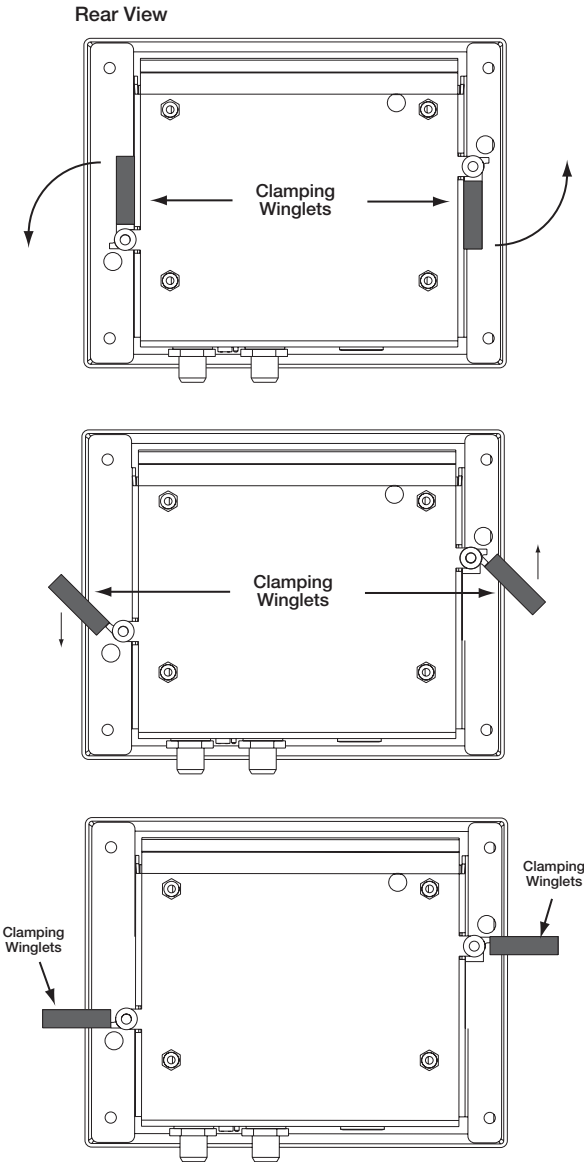


Figure 3.13 Clamping Winglets

Cutout Dimensions

A template is included in the VIA!'s box for use when installing the unit in a retro-fit application. Place the template on the wall in the desired location with the printed words visible before tracing the pattern. Once the pattern is traced, use a drywall knife or saw to cut a hole of the correct size and shape. Be extremely careful not to cut AC lines or anything else that may be behind the wall!

Note: Template illustrations are not actual size. Use the templates included in the box.

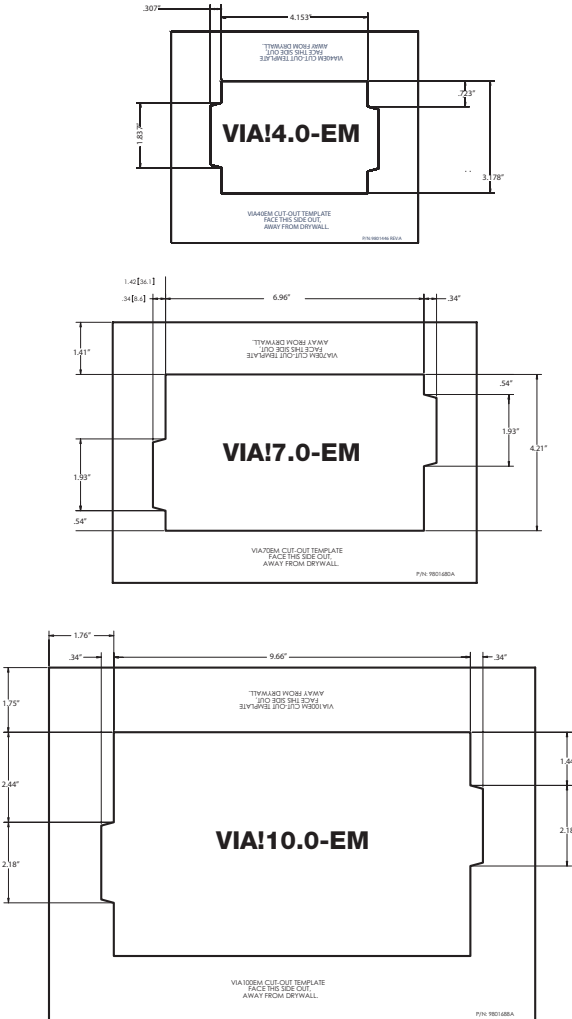


Figure 3.14: Cut-Out Template

Mounting

Four predrilled mounting holes in the unit's metal frame allow the panel to be mounted directly through drywall into a stud (1.5" pan head screws are recommended). When screwing one side of the VIA! Touch Panel into a stud, the winglet on the opposite side should be deployed. The use of drywall anchors in lieu of stud-mounting is not recommended.

To mount the unit to a stud when not using a rough-in bracket, it is necessary to remove the clamping winglet and bend back the metal tab that holds the winglet in place. This allows the VIA!'s housing to mount flush against the stud. See **Figure 3.15** for details.

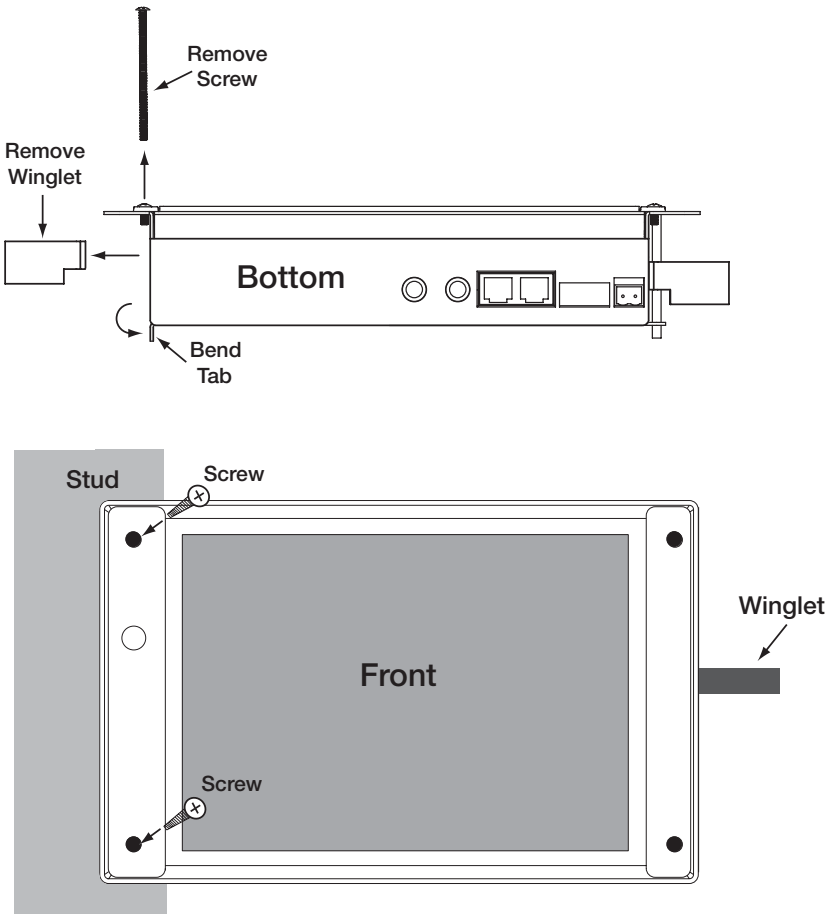
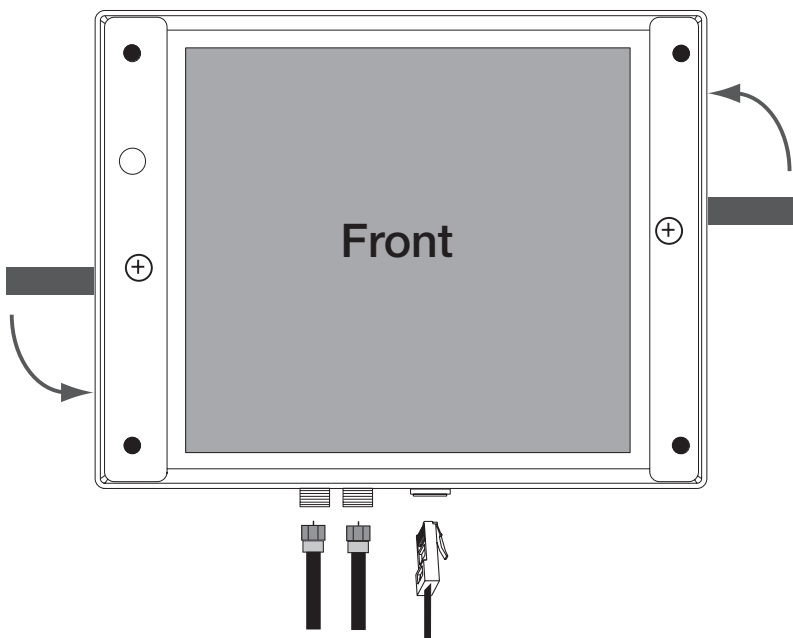


Figure 3.15: Stud Mounting

Removal From Wall (Winglets Deployed)

1. Use a thin steel ruler or thumbnail to slip under the bottom edge of the faceplate and gently pry it off the assembly.
2. Loosen the winglet screws until they retract inside the metal mounting box. Look through the openings in the mounting flanges to verify that the winglets have fully retracted. If they have not fully retracted you can insert a small diameter screwdriver in the adjacent hole to guide the winglets into the box. Do not apply too much force on the winglets as they may cause damage to the circuit board.
3. Gently pull the top of the VIA! assembly out of the wall first and then slowly lift the rest of the assembly out of the wall. Stop immediately if the winglets grab the drywall or fracturing of the drywall may occur.
4. Lift the assembly up until the wires along the bottom edge are exposed. Label, disconnect and tie off the wires to keep them from dropping down inside the wall. Make sure to protect the touch panel/LCD assembly and faceplate from damage when it is not in the wall.

**Figure 3.16: Removal From Wall**

Connections

Stand-Alone/Home Theater

VIA! Touch Panels are ideal for use as Stand-Alone system controllers or Home Theater controllers. For control of a Home Theater system, the VIA! and PVIA Wall Plate are combined with a method for IR distribution such as ELAN's **IRD4** Amplified Connection Block. Signals originate at the VIA!4.0-EM, pass through the PVIA Wall Plate, then travel to the connection block where they are routed to each component.

Note: This application does not allow for independent control of identical sources. An ELAN Multi-Room Controller, SS1 System Station or SR-1 Sense/Relay Module should be used.

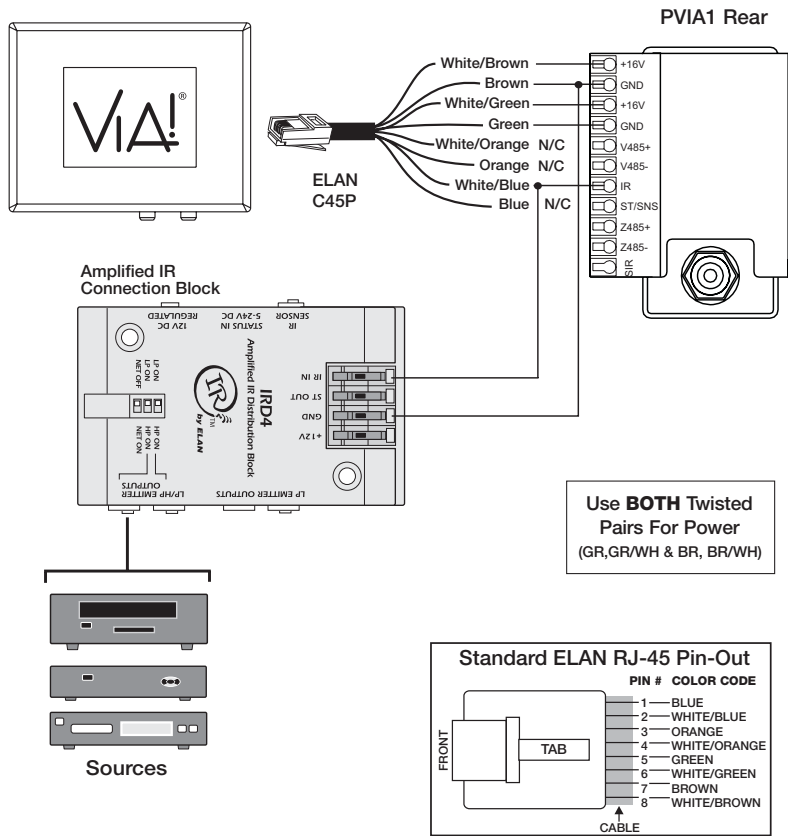


Figure 3.17: Stand-Alone/Home Theater Connections

ELAN System12 and System8

ELAN System12 (S12) and System8 (S8.6AV /S8.6AVP) Multi-Room A/V Controllers were designed with VIA! Touch Panels in mind. Rather than using a PVIA Wall Plate, provisions have been made on the SPP System Precision Panel for complete VIA! connectivity. Using Cat-5, connect IR, RS485+/-, GND, and +16VDC as shown in **Figure 3.19**. **Figure 3.20** shows the correct power supplies for use with the SPP. Please consult the S12 and S8 Installation Manuals for video configurations and additional details.

Note: A PS12 Precision Panel may be used for S12 applications. Connections are identical to those shown in Figure 3.18.

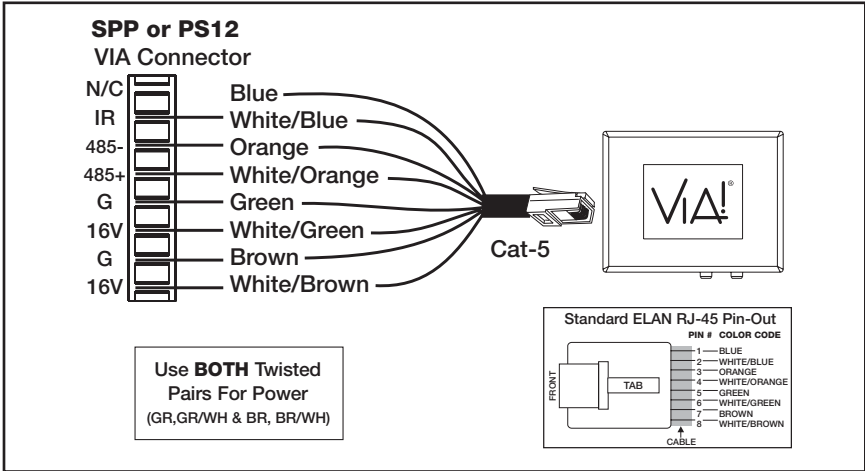


Figure 3.18: SPP or PS12 Connections

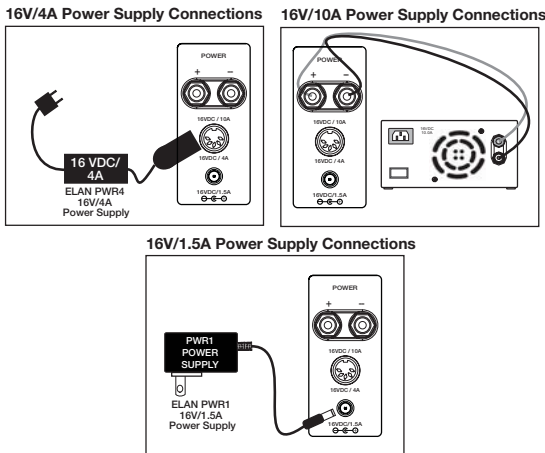
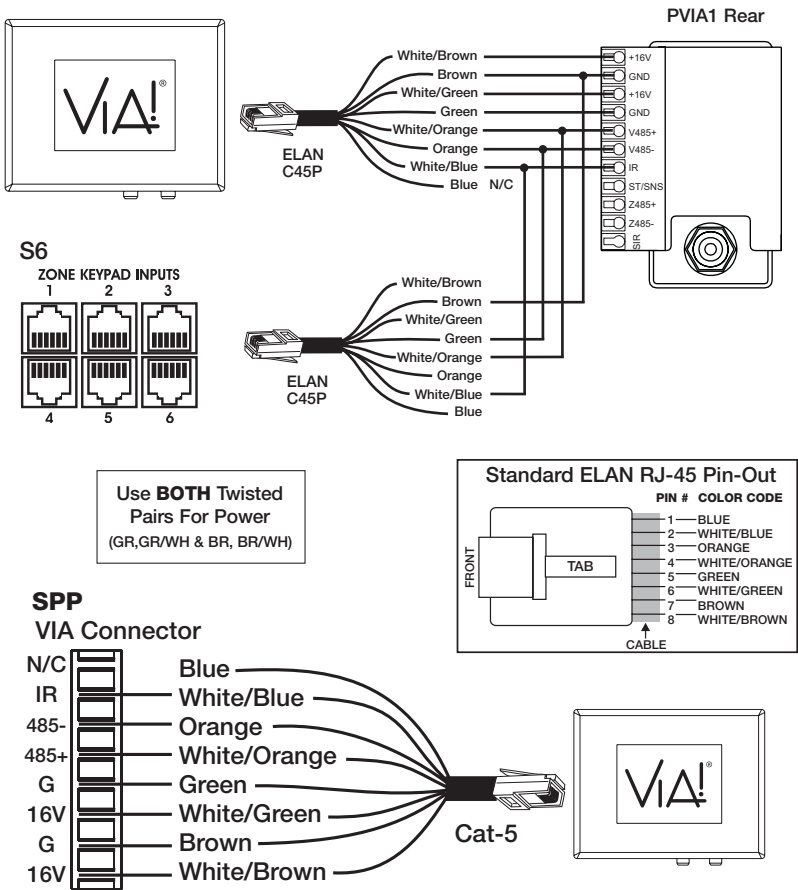


Figure 3.19: SPP Power Supplies

ELAN System6 (w/ PVIA Wall Plate)

Use VIA Touch Panels to add functionality and flexibility to ELAN’s System6 (S6) six-source, six-zone Integrated Multi-Room Controller. A PVIA1, PVIA4, PVIA10 or SPP System Precision Panel must be used when interfacing VIA!s to an S6. Connect IR, RS485+/-, GND, and 16VDC from the PVIA Wall Plate to the VIA! Touch Panel as shown in **Figure 3.20**. Connect IR, RS485+/-, and GND between the PVIA Wall Plate or SPP and the S6, as shown. Multiple VIA!s will connect in the same way. Please consult the S6 Installation Manual for additional details.

Note: The SPP can be used with ANY ELAN S Series Multi-Room Controller. Connections are identical for ELAN S6, S8 or S12 applications.



ELAN Z•System

Use a PVIA Wall Plate and a PZ6 Precision Panel for when installing VIA!s in a Z•System. Connect IR, RS485+/-, GND, and +16VDC from the PVIA Wall Plate to the VIA! Touch Panel as shown. Connect IR, RS485+/-, and GND between the PVIA Wall Plate and the PZ6, as shown. Multiple VIA!s will connect in the same way. Please consult the Z•630 Installation Manual for additional details.

Zone 1 Shown

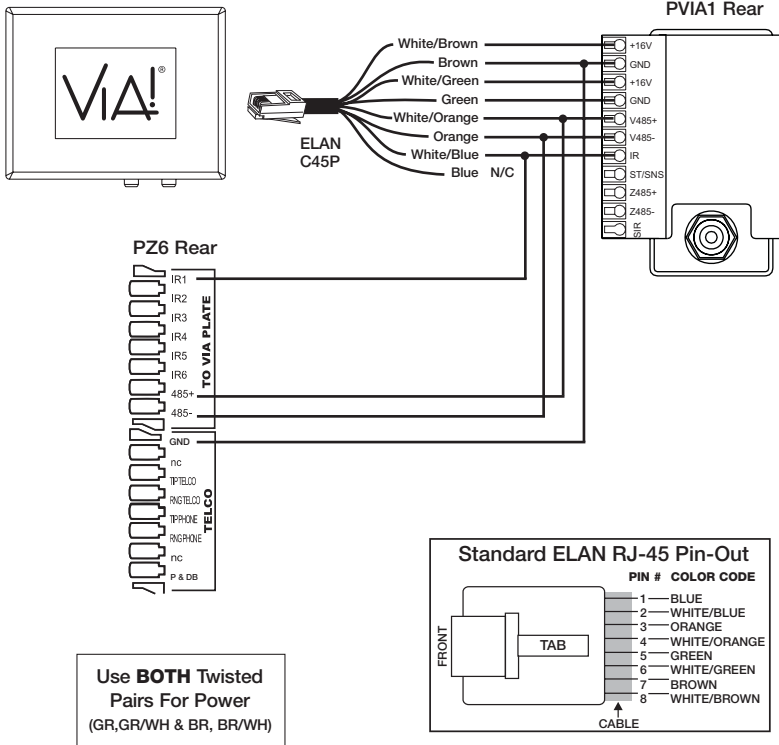


Figure 3.21: Z•System Connections

Increasing Wire Runs Beyond the 200 Foot Maximum

If a VIA! Touch Panel must be mounted further than 200 feet from the head end, it is possible to use a PVIA Wall Plate (typically a PVIA1) to power the unit locally (within 110 feet). The diagrams in this section show specific wiring schemes for Stand-Alone systems and each ELAN Multi-Room System. Alternatively, a 2-conductor, 18AWG wire may be used to connect to the External Power Port for wire runs longer than 200 feet. Please see **Using the External Power Connector** on p. 35 for details.

Stand-Alone

Use local PVIA1s for connecting VIA!s to an amplified IR Connection Block to make a large Stand-Alone system, as shown in **Figure 3.23**.

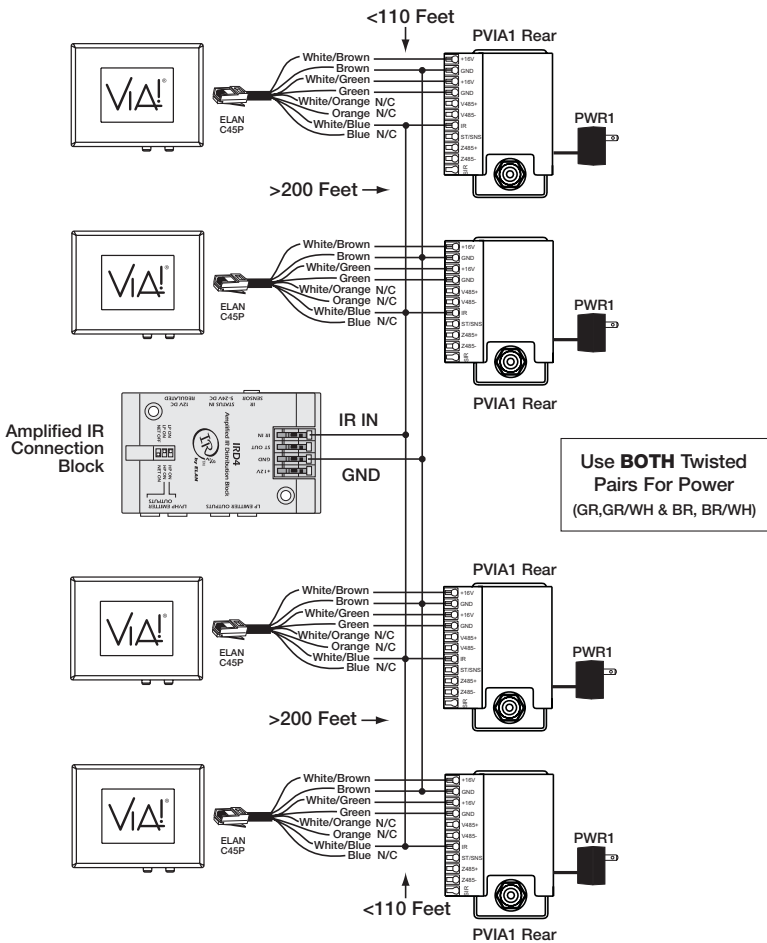


Figure 3.22: Stand-Alone Connections > 200'

ELAN S12 and S8

Use a local PVIA1 to connect a VIA! Touch Panel to a PS12 or SPP Precision Panel located more than 200 feet away.

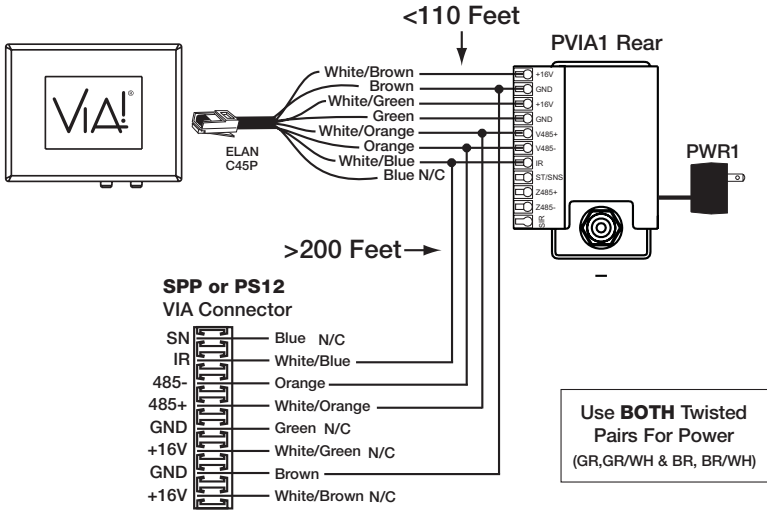


Figure 3.23: S12/S8 Connections > 200'

ELAN S6

Use a local PVIA1 to connect a VIA! to an ELAN S6 located more than 200 feet away.

Note: The SPP System Precision Panel may also be used for this application. Connections are identical to those shown in Figure 3.23.

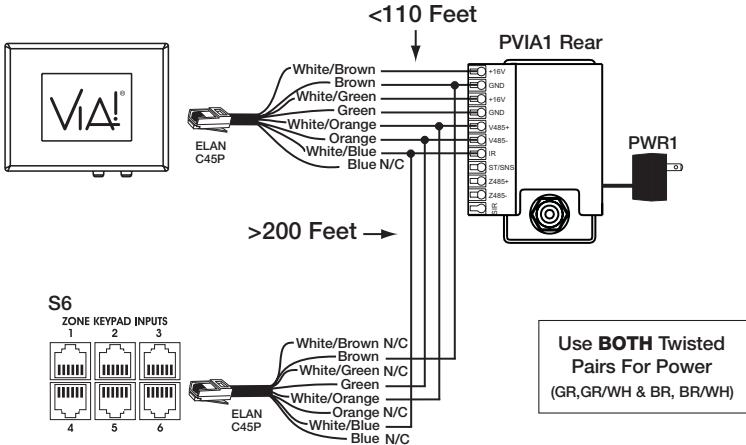


Figure 3.24: S6 Connections > 200'

ELAN Z•System

Use a local PVIA1 to connect a VIA! to a PZ6 Precision Panel located more than 200 feet away.

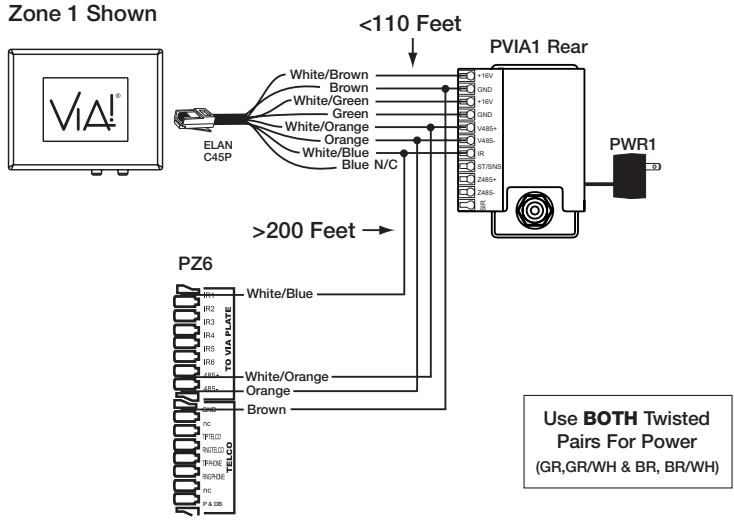


Figure 3.25: Z•System Connections

Using the External Power Connector

In applications where it is not desirable to use a local PVIA Wall Plate is recommended to use 18AWG 2-conductor wire between the head-end location and the VIA! Touch Panel for wire runs greater than 200 feet. All other wiring remains the same. See **Figure 3.26** for details.

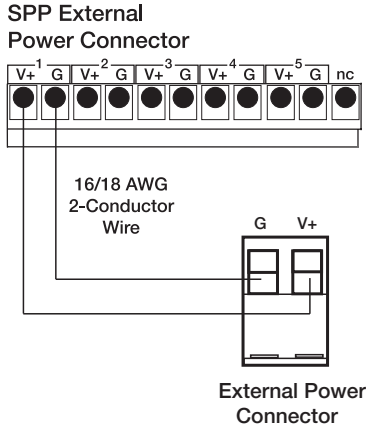


Figure 3.26: External Power Connector

4. Operation

VIA! Touch Panels are designed to be simple and intuitive to operate. Each source is custom programmed to work just the way the homeowner desires. This unit is a true touch screen controller; no hard buttons or stylus required! Use a finger (or fingernail) to lightly press on the screen each time an action is required.

Timeouts

VIA!TOOLS provides separate Timeouts for Source page, Off page, Lights page, Video, and Cameras. Each of these values should be set with the homeowner's lifestyle in mind.

Camera Mode

When in Camera Mode, VIA! Touch Panels utilizes hidden buttons on the display that allow for NEXT, PREVIOUS, SCAN ON and SCAN OFF functionality. A fifth button, EXIT FROM VIDEO MODE, is also present. These buttons are Autobuilt in VIA!TOOLS and will allow the homeowner to display a specific camera or all cameras, as desired. See the VIA!TOOLS Help file for more specifics.

Video Overlays

Overlays are special pages built in VIA!TOOLS to control video sources while still viewing the video on the VIA!. Each of these Overlays is custom built and assigned in programming. See the VIA!TOOLS Help file for more specifics.

Cleaning

To clean a VIA!'s screen, first use a soft dry cloth to remove contamination. If dirt is still present, use a damp cloth that has been squeezed of excess water. If dirt is still present, then use a non-abrasive cleaner or detergent to clean the screen. Use of strong chemicals and/or some cleaning agents may discolor the polyester film that makes up the touch screen.

The following products have been tested and approved for cleaning VIA! Touch Panels:

Windex® Glass Cleaner, Formula 409® Cleaner, and Mr. Clean®.

Cleaning Mode

Cleaning Mode is simply a button that is created on the VIA! with a delay programmed under it. This allows the homeowner to clean the screen without initiating any commands to the system. The CLEAN button should be placed in a location that the homeowner or housekeeper can easily remember (see the VIATOOLS HELP File for more details).

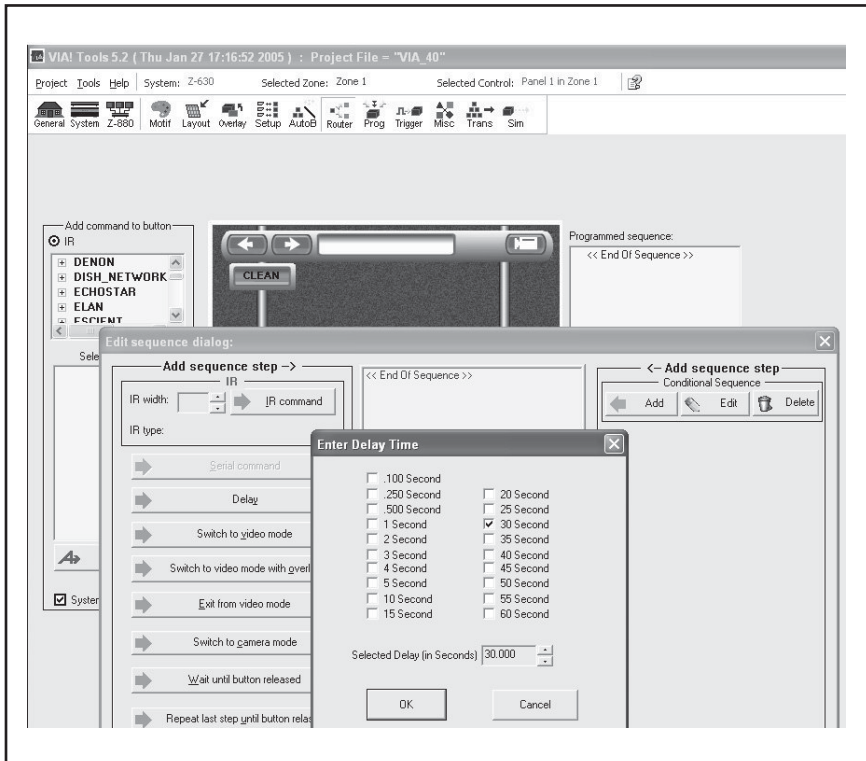


Figure 4.1: CLEAN Button

5. Troubleshooting

General

Symptom	Cause	Solution
Unit will not activate/turn-on when screen is touched	No power supply connected	Connect Power Supply
	Incorrect power supply	Use PWR1, PWR4, or PWR10 16VDC Power Supply
	Power supply defective	With a multimeter, test for 16VDC
	Incorrect power connections	Correct Connections
Unit will activate but no IR control of sources and/or multi-room controller	Incorrect IR connections	Correct Connections
		Use talk-back IR emitter or IR activity LED to verify IR signal
	Incorrect or missing IR/RS232 commands in VIA!TOOLS	Verify commands in VIA!TOOLS
Unit will activate, but displays "UNPROGRAMMED"	Does not contain a VIA!TOOLS program	Download to unit with VIA!TOOLS setup software

Video

Symptom	Cause	Solution
No video displayed when TV or Camera Icon touched	Video cables not connected or incorrectly connected	Verify video connections
	Video In/Out connected backwards	Connect properly
	Video source turned off	Turn on source
Incorrect camera or video source displayed	Source's video output(s) incorrectly connected	Connect properly
	Incorrect or missing IR/RS232 commands in VIA!TOOLS	Verify IR commands in VIA!TOOLS

Appendix A: Specifications

	VIA!4.0-EM	VIA!7.0-EM	VIA!10.0-EM
Connections	SYSTEM Port (RJ45) LOCAL Port (RJ45) VIDEO IN ("F" Connector) VIDEO OUT ("F" connector) INTERFACE Port: IR-OUT/IR-IN/- GROUND/+12V OUT/SENSE 16 VDC Power		
Wiring Requirements	CAT-5 (Data/Power) RG-6 or RG-59 Coaxial Cable (Composite Video) 18 AWG for 16V Power (For Long Runs)		
Resolution	320 pixels (W) 234 lines (H)	480 pixels (W) 234 lines (H)	800 pixels (W) 480 lines (H)
Video Signal	NTSC & PAL Compatible (Automatic Switching)		
Power Requirements	+16VDC/350mA 6W	+16VDC/500mA 8W	+16VDC/625mA 10W
Viewing Angles	35° Up 15° Down 50° Left/Right	50° Up 70° Down 70° Left/Right	45° Up 65° Down 65° Left/Right
Mounting Height	56-60" From Floor		
Dimensions			
Frame Dimensions	5-5/16" (W) 4" (H) 1/4" (D) 135mm (W) 100mm (H) 6mm (D)	8 5/32" (W) 4 15/16"(H) 1/4" (D) 207mm (W) 125mm (H) 6mm (D)	11 5/16"(W) 7 1/4" (H) 1/4" (D)
Screen Size (Active Area)	3 3/16" (W) 2 3/8" (H) 81.12mm (W) 61.78mm (H)	6 1/16" (W) 3 13/32" (H) 154.1mm (W) 86.6mm (H)	8 3/4" (W) 5 1/4" (H) 222mm (W) 133mm (H)
Cutout Size (Approximate-Use Template)	4 5/32" (W) 3 3/16" (H) 106mm (W) 80mm (H)	7" (W) 4 1/4" (H) 177mm (W) 107mm (H)	9 11/16" (W) 6 1/16" (H) 245mm (W) 154mm (H)
Panel Depth	1 3/4" 44 mm		
Weight (w/o packaging)	1 lb, 1 oz .48 kg	2 lb .91 kg	3 lb, 6 oz 1.5 kg
Weight (w/ packaging)	3 lb, 0 oz 1.36 kg	3 lb, 0 oz 1.36 kg	4 lb, 11 oz 2.13 kg

Appendix B: Programming

All VIA! Touch Panels must be programmed with ELAN VIA!®TOOLS Setup Software using a PC running Windows 98 or higher. VIA!TOOLS utilizes the VIA!Learner to interface between the PC and the touch panel to be programmed. It is NOT NECESSARY to power the VIA! during programming, making it possible to program and download to multiple units prior to installation.

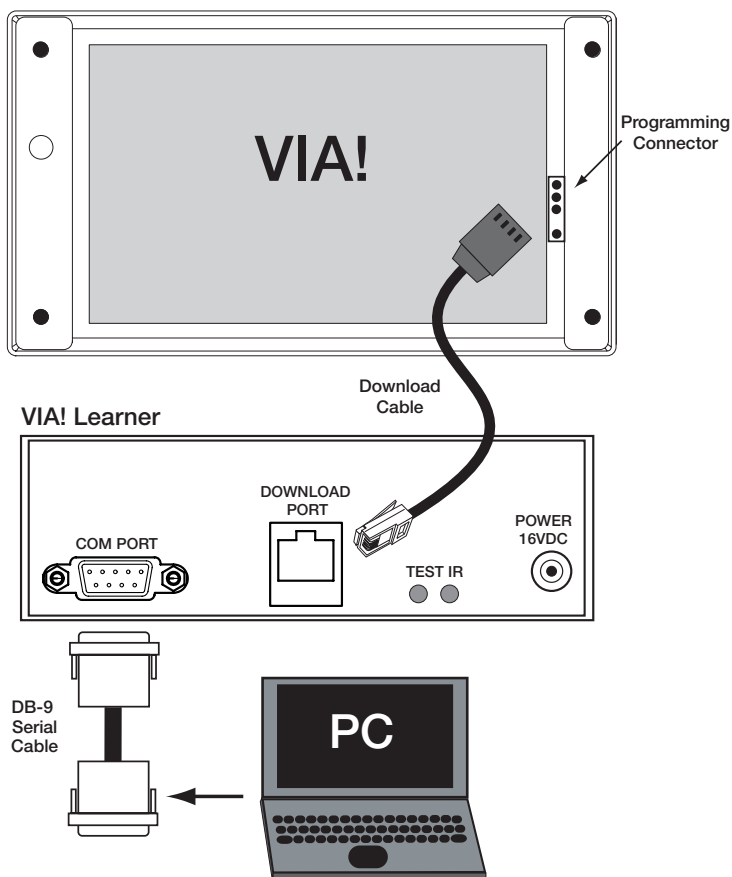


Figure 4.1: VIA!TOOLS Programming

Please see the VIA!TOOLS Help file for complete step-by-step information on programming VIA! Touch Panels.

Limited Warranty

ELAN HOME SYSTEMS L.L.C. ("ELAN") warrants VIA!4.0-EM, VIA!7.0-EM and VIA!10.0-EM Color LCD Touch Panel to be free from defects in materials and workmanship for the period of two years (2 years) from date of purchase. If within the applicable warranty period above purchaser discovers that such item was not as warranted above and promptly notifies ELAN in writing, ELAN shall repair or replace the item at the company's option. This warranty shall not apply (a) to equipment not manufactured by ELAN, (b) to equipment which shall have been installed by other than an ELAN authorized installer, (c) to installed equipment which is not installed to ELAN's specifications, (d) to equipment which shall have been repaired or altered by others than ELAN, (e) to equipment which shall have been subjected to negligence, accident, or damage by circumstances beyond ELAN's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond ELAN's control, or to improper operation, maintenance or storage, or to other than normal use of service. With respect to equipment sold by, but not manufactured by ELAN, the warranty obligations of ELAN shall in all respects conform to the warranty actually extended to ELAN by its supplier. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement.

Except as may be expressly provided and authorized in writing by ELAN, ELAN shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured by ELAN or services rendered by ELAN.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES EXCEPT WARRANTIES OF TITLE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ATTENTION: TO OUR VALUED CONSUMERS

To ensure that consumers obtain quality pre-sale and after-sale support and service, ELAN Home Systems products are sold exclusively through authorized dealers. ELAN products are not sold online. The warranties on ELAN products are **NOT VALID** if the products have been purchased from an unauthorized dealer or an online E-tailer. To determine if your ELAN reseller is authorized, please contact ELAN Home Systems at (859) 269-7760.



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